

**DOCKET NO.:KCX- 472 (17476)**

**UNITED STATES PATENT APPLICATION**

**FOR**

**SHEET DISPENSER AND CARTON FOR  
MAKING A SHEET DISPENSER**

**BY**

**GERALD JAMES KEBERLEIN**

DOCKET NO.:KCX-472 (17476)

**Background of the Invention**

A variety of U-shaped holders for sheet materials have been employed. Such holders have been used to secure envelopes, note  
5 paper, paper napkins, memorandum pads, calendars, and the like. Such holders generally have been constructed of relatively stiff, cast metal or molded plastic type materials, and often have been shaped into their ultimate form at the point of fabrication. Typically, these holders are permanent fixtures, which are purchased separately from the items that  
10 they are designed to hold.

United States Patent No. 5,405,019 to Cross is directed to a display mounting apparatus adapted to support books and loose materials. The device disclosed in this patent provides sturdy metal hinges to provide a strong support. The device provides panels that may  
15 be oriented diagonally, for supporting a vertical panel. United States Patent No. 3,216,582 to Cross shows a U-shaped holder for securing sheets of material with a pair of upright panels that rotate on a base element. The upright panels may be folded on a hinged area and collapsed for packing or shipping.

20 Typical dinner napkins, for example, may be sold in lightweight cellophane packages. A consumer may purchase a napkin holder of any variety, and also a package of napkins. Then, at another location (which could be the home) he or she inserts the napkins into the holder for

display and use. Thus, the same permanent napkin holder may be used in the home, or in a restaurant, for many years. Thus, such a holder may be refilled numerous times with new napkins.

Refilling sheet material dispensers, such as napkin holders, is a time consuming procedure. In a restaurant setting, the time required to load new napkins or sheet materials into a holder may be fairly extensive, increasing labor costs. At home, it is an additional extra step to refill and/or reload permanent holders. Furthermore, many consumers become weary of the ordinary appearance of such holders. It would therefore be desirable if there was a convenient means to decorate such holders for seasonal or holiday events.

Many consumers avoid using permanent, fixed sheet holders in the home because of the excessive cost of such holders. Furthermore, many sheet holders are designed for repeated use, and are not easily adapted as inexpensive, lightweight, and/or disposable. Thus, in the case of napkins, such permanent holders are not typically used for outdoor events, picnics, and the like. This is true in part because of the difficulty required to transport the holder and napkins to the event, and the necessity to bring the holder home (i.e. return it) after the event. Thus, there are significant limitations to currently known holders of this type.

What is needed is a relatively inexpensive, lightweight, easy to manufacture and attractive holder for sheet products. A holder that is

capable of convenient and inexpensive manufacture would be desirable. A holder that is packaged and capable of being sold pre-filled with sheet material, and provided as a single pre-loaded unit, also would be highly desirable. Furthermore, in the case of napkins and folded paper products, a lightweight and/or disposable dispenser capable of reliably holding and dispensing folded napkins for display and use is needed.

### **Summary of the Invention**

In the invention, a carton may be adapted for storing and displaying stacked sheet material. In some applications, the carton may comprise a one-piece blank adapted to be folded in a manner that results in a carton having a bottom panel, a first sidewall, and a second sidewall. The bottom panel includes a first edge and a second edge. The first sidewall is erected along the first edge, and the second sidewall is erected along the second edge of the bottom panel. Furthermore, a first flap extending from the first sidewall over at least a portion of the bottom panel is adapted to be secured to the bottom panel. In other applications of the invention, a second flap may be used as well.

In one embodiment of the invention, the carton having a first and a second flap may include space that exists between the flaps and the bottom panel when the carton is in a folded position. Sometimes adhesive is used to fill the space, securing the first and second sidewalls in an erect position. In some applications, other means may be used to secure the flaps to the bottom panel for erecting sidewalls.

In some applications of the invention, the carton is capable of assuming both a relaxed position, in which space is provided between the first flap and the bottom panel, and a bonded position in which the first flap is secured to the bottom panel.

5 In one embodiment of the invention, the carton may assume a tensioned position in which sheet material or napkins may be positioned between the first and second sidewalls and held in place, in part, by pressure applied from the first or second sidewall. That is, a second stage gluing application may provide the sidewalls in a slightly canted position in which they lean slightly towards each other and are capable of squeezing sheet material therebetween.

In at least one application of the invention, gusset tabs may be employed in connection with adhesive to secure the bottom flaps to a bottom panel, providing sidewalls which are slightly canted.

#### 15 **Brief Description of the Drawings**

A full and enabling disclosure of this invention, including the best mode shown to one of ordinary skill in the art, is set forth in this specification. The following Figures illustrate the invention:

20 Figure 1 is a perspective view of a sheet dispenser of the invention;

Figures 2-7 show a progression of steps in folding and forming a finished sheet dispenser from a carton blank;

Figure 2 reveals a top view of a carton blank that is cut and ready for folding to form a sheet dispenser as shown in Figure 1;

Figure 3 depicts a partially folded carton blank;

Figure 4 shows a next step in folding and constructing the sheet dispenser, in which panels are folded into position and adhesive is applied;

Figure 5 shows the side panels after they have been affixed to each other, with bottom panels ready to receive an adhesion means;

Figure 6 is a view of a next step in the folding and construction of the sheet dispenser in which one side panel pair has been raised vertically, and one bottom panel has been adhesively secured in place;

Figure 7 shows a fully formed sheet dispenser ready to receive sheets to form a final product as shown previously in Figure 1; and

Figure 8 illustrates a perspective view of an alternate configuration of the product comprising a carton and napkin stack in which the napkins are stacked vertically for convenient dispensing.

### **Detailed Description of the Invention**

Reference now will be made to the embodiments of the invention, one or more examples of which are set forth below. Each example is provided by way of explanation of the invention, not as a limitation of the invention. In fact, it will be apparent to those skilled in the art that various modifications and variations can be made in this invention without departing from the scope or spirit of the invention. For instance,

features illustrated or described as part of one embodiment can be used on another embodiment to yield a still further embodiment. Thus, it is intended that the present invention cover such modifications and variations as come within the scope of the appended claims and their  
5 equivalents. Other objects, features and aspects of the present invention are disclosed in or are obvious from the following detailed description.

The invention of this application, in one embodiment, is directed to a carton adapted for storing and displaying stacked sheet materials. The stacked sheet materials comprise napkins, wipers, folded towels, and  
10 other absorbent products. The invention may include a carton adapted for holding, storing and managing the transportation of essentially any type of sheet material or web that may be folded, or not folded.

In other applications, a disposable holder may be provided for disposable paper products such as napkins, paper towels and the like.  
15 Some applications of the invention may utilize decorative graphics to be employed, for example, when the carton is to be used as a pre-packed tabletop or counter top decorative dispenser. The invention has application for home use and commercial use as well.

Turning to Figure 1, a sheet dispenser **21** is illustrated having a  
20 first outer sidewall **22** and a second outer sidewall **28**. The second outer sidewall **28** is located behind the horizontally stacked sheets **23** in Figure 1. In this particular example, the stacked sheets comprise dinner napkins, but the application of the invention is not limited to dinner

napkins, and may be applied broadly as described above. Furthermore, a bottom panel **26** is connected to the first outer sidewall **22** and the second outer sidewall **28**. A decorative motif **24** is shown on the first outer sidewall **22**. However, the decorative motif **24** is entirely optional, and there is no limit to the number of different graphic representations that can be used in the application of the invention. The particular decorative motif **24** is merely a representation of one example that can be employed. A cellophane or other clear plastic outer wrap **25** may be employed. The outer wrap **25** typically is removed prior to using the product for display on a table or countertop.

Figure **2** shows a perspective view of a one-piece blank **45** that may be employed in some applications of the invention. The one-piece blank **45** may be formed of paper or any ridged material, and may be laminated or unlaminated. In some applications, the one-piece blank **45** may be printed, while in other applications it may be unprinted. In general, the one-piece blank **45** may be formed into a finished sheet dispenser **21** by a series of steps that are described herein. In some applications of the invention, a gluing step is performed. In other applications of the invention, both a first stage and a second stage gluing step may be performed, as further described below.

In Figure **2**, a bottom panel **26** is shown near the center of Figure **2**, and first outer sidewall **22** and second outer sidewall **28** are shown on either side of the bottom panel **26**, and are connected thereto.



Furthermore, a second inner sidewall **29** and a first inner sidewall **27** are shown as well. The first arch **36** circumscribes first gusset tab **32** and second gusset tab **33**. Near each end of the one-piece blank **45** is first arch **36** and second arch **37**, respectively. The first arch **36** and second arch **37** form a dividing line between the portion of the sidewalls which are adhesively secured to each other and the portion of said walls which is not adhesively secured. Thus, the first and second arches **36-37** assist in providing a tensioning force, as further described herein. In the particular example shown in Figure **2**, the arch **37** circumscribes third gusset tab **34** and fourth gusset tab **35**.

The first, second, third, and fourth gusset tabs **32-35** assist in erecting and maintaining the rigidity of the first outer sidewall **22** and second outer sidewall **28**, as further described below. The particular example shown in Figure **2** includes a total of two gusset tabs at each end of the one-piece blank **45**, however, there is no limit to the number of gusset tabs that could be employed. In fact, it would be possible to construct the invention without gusset tabs at all, but it has been found that the use of gusset tabs may be advantageous.

A first flap **30a** is shown near the bottom of Figure **2**, and a second flap **30b** is shown near the top of Figure **2**. When the one-piece blank **45** is folded into a sheet dispenser **21**, the second flaps **30a-b** may be secured to the bottom panel **26** as further described below.

The first edge **46** is shown along one side of the bottom panel **26**, and a second edge **47** is shown along the opposite side of the bottom panel **26**. The walls of the dispenser **21** are erected proximate to the first edge **46** and the second edge **47**, respectively, as further shown in the Figures.

In the folding of the one-piece blank **45**, Figure **3** shows a first step in which the first flap **30a** and the second flap **30b** are folded downward. This folding action exposes the cut-out portions of the first, second, third and fourth gusset tabs **32-35** as shown in Figure **3**. Other aspects of Figure **3** are essentially as described above with respect to Figure **2**.

In Figure **4**, a next step in the construction of a dispenser **21** from the one-piece blank **45** is shown. In that Figure **4**, the first inner sidewall **27** and the second inner sidewall **29** are shown. The first and second inner sidewalls **27-29** are folded over, rotated, and pushed down upon the first outer sidewall **22** and second outer sidewall **28**, respectively. A means of securing the inner and outer sidewalls is provided.

In Figure **4**, the means of securing the walls is shown as adhesive **38** and adhesive **39**. The adhesive employed may be essentially any adhesive that may be applied to the one-piece blank **45** at relatively high speed in a manufacturing operation. Hot melt adhesives may be employed. However, the invention is not limited in any way to the application of adhesive as a means of securing the dispenser **21**. Other

applications could include stapling, punching, pinning, tacking, or otherwise fitting one panel to another. Furthermore, in other applications it may be possible to provide a self-adhesive strip or portion upon one or more of the inner or outer sidewalls which may be activated when the dispenser **21** is assembled by removing a self-adhesive strip (not shown) or by applying heat to the surface of one or more walls. There is no limit to the different means for securing the walls that could be employed, and the invention is not limited to only those described herein.

In Figure 5, a next step in the construction of the dispenser **21** is shown in which the first inner sidewall **27** and second inner sidewall **29** have been secured to the first outer sidewall **22** and second outer sidewall **28**. That is, in some applications of the invention, a second stage gluing step would be performed in which the first flap **30a** and the second flap **30b** are secured to the bottom panel **26** by a fastening or adhesive method. In the particular example shown in Figure 5, adhesive **40** and adhesive **41** are employed. That is, when the walls of the one-piece blank **45** are erected, the first and second flaps **30a-b** are adhered to the bottom panel **26**.

In Figure 6, the second flap **30b** has been secured to the bottom panel **26**, which effectively removes space that may otherwise exist between second flap **30b** and bottom panel **26**. In the particular example shown in Figure 6, a decorative motif has been applied to the second inner sidewall **29**. In some cases, the decorative motif could be

embossed, or preprinted upon a one-piece blank **45**. In other applications, a screen printing or high-speed painting process could be employed. In yet other applications it would be possible to laminate a relatively thin preprinted decorative print upon the one-piece blank **45**. In Figure **6**, the first gusset tab **32** and the second gusset tab **33** facilitate the entry of a portion of the second flap **30b** into the notches formed by the first and second gusset tabs **32-33**. In some applications of the invention, only one gusset tab would be used on each side of the one-piece blank **45**. In other applications of the invention, it might not be necessary to use gusset tabs at all. However, it has proved to be advantageous to provide at least one gusset tab near the junction of a flap with one or more of the upright walls, along the first edge **46** and second edge **47** of the bottom panel, as shown in Figure **6**.

In Figure **7**, the embodiment shown in Figure **6** is shown in a next step in which the first flap **30a** has been adhered to the bottom panel **26**. Furthermore, first and second finger access notches **31a** and **31b** are shown on the upper margin of the sidewalls, extending (i.e. cut through) both the outer and inner sidewalls. The first and second finger access notches **31a-b** provide a convenient gripping location for a person to extract a stacked sheet **23** from the dispenser **21**.

In Figure **8**, an alternate embodiment of the invention is shown in which a sheet dispenser **50** is provided with a first outer sidewall **51** and a second outer sidewall **53**. The bottom panel **52** is shown, similar to

that shown in previous embodiments. However, in the embodiment shown in Figure 8 vertically stacked sheets 54 are provided, in which the sheets are folded and stacked in a vertical arrangement. A finger access notch 55 is shown, and the hand 58 having thumb 59 is able to effectively and conveniently grasp sheet 58 easily by inserting the thumb 59 into the open space formed by the finger access notch 55.

Furthermore, the embodiment shown in Figure 8 is particularly well adapted for a stacking arrangement in which the crease 57 (or fold) of the sheet is provided upwards, similar to that shown in Figure 8.

Although the invention is not limited to any particular folding or stacking arrangement, the arrangement shown in Figure 8 is believed to function effectively.

In one embodiment of the invention, the carton may assume a tensioned position in which sheet material or napkins may be positioned between the first and second sidewalls and held in place, in part, by pressure applied from the first or second sidewall. That is, a second stage gluing application may provide the sidewalls in a slightly canted position in which they lean slightly towards each other and are capable of applying a slight restraining force to stacked sheet materials.

In at least one application of the invention, gusset tabs may be employed in connection with adhesive to secure the bottom flaps to a bottom panel, providing sidewalls which are slightly canted inward, and are capable of providing a tensioning force when filled with sheet

5

It is understood by one of ordinary skill in the art that the present discussion is a description of exemplary embodiments only, and is not intended as limiting the broader aspects of the present invention, which broader aspects are embodied in the exemplary constructions. The invention is shown by example in the appended claims.